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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,831	01/15/2002	Madhu Chetuparambil	RSW920010180US1	5708

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EXAMINER	
MADAMBA, GLENFORD J	
ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/047,831	CHETUPARAMBIL ET AL.	
	Examiner	Art Unit	
	Glenford Madamba	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *15 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on *15 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Pirolli et al (hereinafter Pirolli), U.S. Patent 6,098,064.

3. Claim 1 discloses a method of programmatically determining (Col 12, lines 1-5) edgification of components in a computing network, comprising steps of:

retrieving values for one or more characteristics of one or more components to be potentially edgified **506 / 510** (Figure 5, Col 3, lines 13-15);

retrieving values for one or more characteristics of an operating environment in which the edgification is to potentially occur **508** (Figure 5, Col 3, lines 5-12; also Figure 1, Col 3, lines 61-63);

retrieving a policy which expresses associations between the characteristics of the components and the characteristics of the operating environment (Col 3, lines 18-30; Col 5, lines 15-25; and Col 10, lines 65-67); and

programmatically combining the values of the characteristics of a particular one of the components, the policy, and the values of the characteristics of the operating environment to yield a result which determines whether the particular component is edgeable **511** (Figure 5, Col 3, lines 15-17; Col 9, line 47– Col 10, line 11);

Claims 9 & 10 are rejected for the same reasons pointed out above as it differs from Claim 1 only by their statutory category.

4. Claim 2 asserts the method according to claim 1, further comprising the step of comparing the result to a threshold to determine whether the particular component is edgeable (Col 10, lines 42-48).

5. Claim 3 states the method according to claim 1, wherein the characteristics of the one or more components are supplied by developers of the components (Col 5, lines 39-51).

6. Claim 4 cites the method according to claim 1, wherein the characteristics of the operating environment are supplied by an administrator of the environment (Col 5, lines 26-38).

7. Claim 5 points to the method according to claim 1, wherein the policy is supplied by a deployer (Col 11, lines 36-51).

8. Claim 7 identifies the method according to claim 1, wherein the values of the characteristics of the one or more components, values of the policy, and values of the characteristics of the operating environment range between zero and one (Col 9, lines 55-65).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 6 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirolli in view of Hoffman et al (hereinafter Hoffman), U.S. Patent 5,905,666.

3. Claim 6 references the method according to claim 1, wherein the step of programmatically combining uses techniques of matrix multiplication.

Pirolli, in his invention, discloses that the values needed for computing at least one of the component characteristics (i.e., history factor) or the operating environment characteristics (i.e., context factor) are represented as vector elements within the respective data structure (Col 6, lines 63-67 thru Col 7, line 29, Figure 5). Pirolli also discloses that the two characteristics are combined to compute the need probability for the invention (Col 9, lines 47-67). Pirolli does not disclose that the two characteristics are programmatically combined using the technique of matrix multiplication.

However, in his invention, Hoffman discloses a method, system and data structure to facilitate matrix multiplication in solving linear programming problems involving vectors and matrices. Hoffman teaches that mathematical expressions of the general form Ax=b represent a system of linear equations, where x is a vector of variables, and A is a two-dimensional array of coefficients. If A, x, and b are vectors or matrices, then the expression Ax=b is a matrix multiplication problem and is typically solved by linear programming processing. He further teaches that matrix processing capability is fundamental to solving linear programming problems (Hoffman: Col 2, lines 42-48).

Hence, it would be obvious to one of ordinary skill in the art at the time of the invention to utilize the well-known matrix multiplication technique disclosed by Hoffman and incorporate it into Pirolli's invention, in order to efficiently process and compute for solutions to products of linear equations involving matrices and vectors and for overall improved computational efficiency (Hoffman: Col 3, lines 57-64).

4. Claim 8 identifies the method according to claim 1, wherein the step of programmatically combining uses modifications to techniques of matrix multiplication, wherein particular intermediate results signal changes to the matrix multiplication process.

Pirolli, in his invention, discloses that in computing for the history data factor, a variable of a given vector may be modified or incremented, such as the vector for the number of times referenced (Col 2, lines 42-48). Pirolli does not disclose that combining uses modifications to techniques of matrix multiplication, wherein particular intermediate results signal changes to the matrix multiplication process.

But, in his invention, Hoffman teaches that the varying the value of one of the variables, resulting in a different vector or matrix, has the effect of changing the values of other variables. The values for the resulting new set of basic variables define another vertex of the solution (Hoffman: Col 3, lines 38-51).

Hence, Claim 8 is rejected given the same rationale discussed above in #3 for Claim 6.

Conclusion

1. The Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Glance et al, Patent No. 6415368
  System and Method for Caching
- McHenry et al, PG-Publication No. 0115281.A1
  Content Distribution Network Server Management System Architecture

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenford Madamba whose telephone number is 571-272-7989. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3932. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Glenford Madamba
Examiner
Art Unit 2151

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER